

Ultra-Sonic RT-Series



RT-Series Ultra-Sonic Cleaning Module Quick Reference Guide

Product Description

The Pyxis Ultra-Sonic RT-Series Cleaning Module Kit (P/N – 56208) is a unique ultra-sonic vibration assembly specifically designed as an accessory for installation and use with the Pyxis RT-Series Prism Refractive Index sensors. The RT-Series (including the RT-50 and RT-100 Prism) sensors are inline digital refractometers that measure the refractive index of a liquid sample and provide a direct reading of highly accurate concentration values for a wide variety of water and process related applications. Each RT-Series Prism sensor is provided with a Tri-Clamp Flow Assembly for bypass flow installations, and contains a port specifically designed for the use of the Ultra-Sonic RT-Series Cleaning Module Kit. Ultrasonic cleaning can be highly effective at preventing the accumulation of tenacious or sticky deposits on the RT-Series sensor eye. This accessory is highly suited for continuous operation applications in water or process applications where sensor fouling or deposit buildup is of concern.

The working cycle of Ultra-Sonic RT-Series Cleaning Module can be programmed to 5-minute, 15-minute and 30-minute cycles directly through the display settings of the RT-50 and RT-100 units. Each cleaning cycle time is approximately 5-seconds in duration.

The Ultra-Sonic RT-Series Cleaning Module is provided with a power supply and control box that works synchronously with the RT-Series sensor as outlined in the System Connection section of this document.

Features

- 316L Stainless Steel Body
- 64-mm (2.5-inch) Sanitary Fitting Compatible
- Direct Insertion into Sanitary Port of the RT-Series Tri-Clamp Flow Assembly
- Insertion opposite side of RT-Series sensor Optical Lens
- Periodic Timed Control via RT-Series Sensor Display Interface (5/15/30-minute increments: Default = 15)
- Operation Duration Per Period – 5 Seconds
- Power/Control Box Included (110-220VAC) powers both Ultra-Sonic Module and RT-Series Sensor
- Trigger Signal directed from RT-Series setting back to Power/Control Box then to Ultra-Sonic Module
- RT-Series sensor refractive index override prevents ultra-sonic transducer operation when no liquid is seen



*Figure 1.
Ultra-Sonic RT-Series Cleaning Module installed in
Tri-Clamp Flow Assembly*

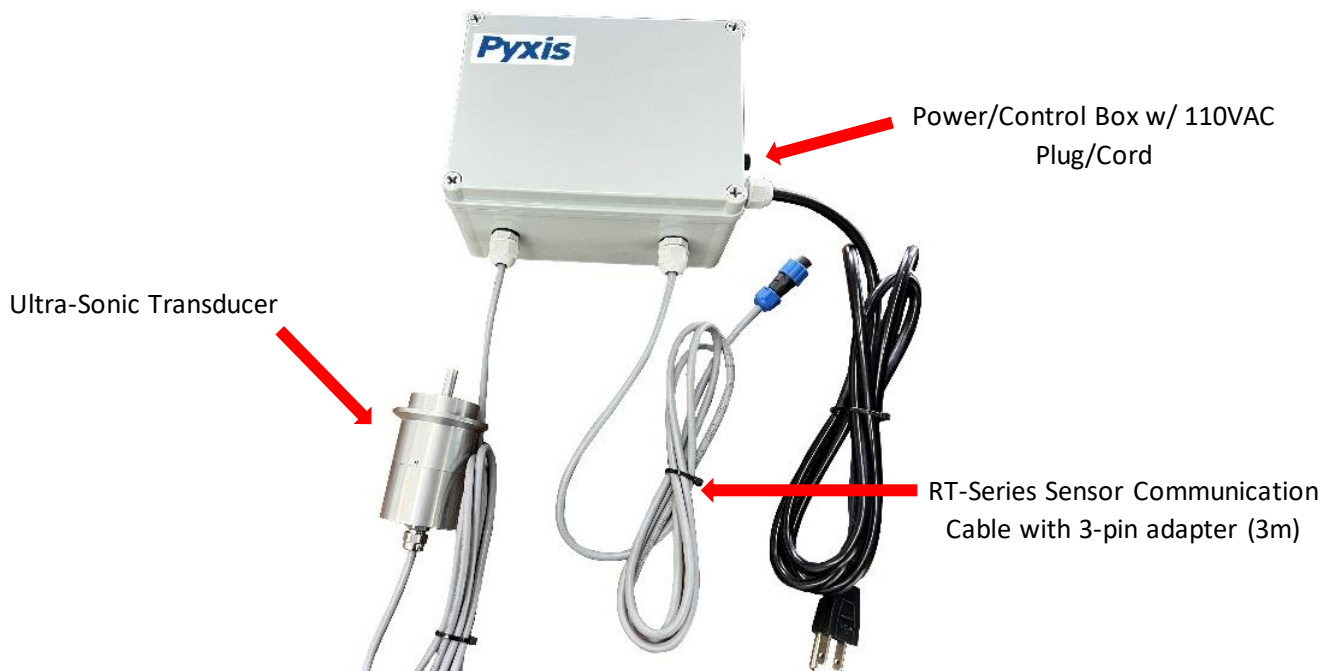
Specifications

Item	Ultra-Sonic RT-Series Cleaning Module Kit
P/N	56208
Installation	64mm (2.5-inch) Sanitary Fitting into the RT-100 Tri-Clamp Flow Assembly Port
Control Method	Timed Cycle via RT-Series Sensor Settings (5,15, 30 min)
Duration of Cleaning Cycle	~5-Seconds Per Cycle
Power	110V or 220V, <80W
Weight	Ultra-Sonic Transducer: 0.45Kg Power Control Box: ~1Kg
Dimension	Ultra-Sonic Transducer: 103x64x64mm Power Control Box: 200x150x100mm
Material of Construction	Ultra-Sonic Transducer: 316L Stainless Steel Gasket: Neoprene

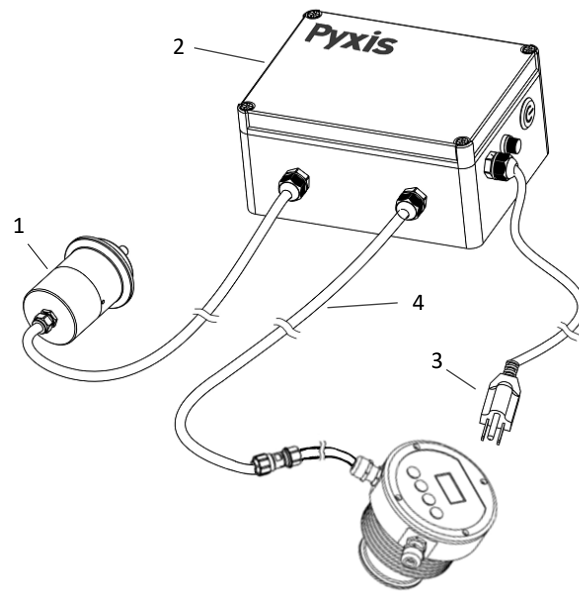
Pyxis Lab is constantly updating technology, as such specifications are subject to change

Ultra-Sonic RT-Series Cleaning Module Kit Package (P/N 56208)

- One Ultra-Sonic RT-Series Transducer w/ connection cable
- One Power/Control Box w/110 VAC Power Supply Cable
- One 3-Pin Prewired Input Cable w/Adapter (3meter) for Connection to RT-Series Prism Sensor

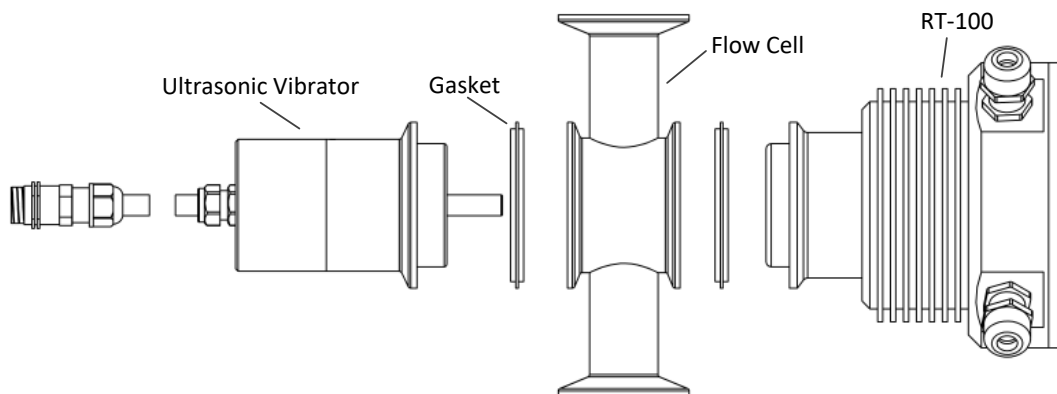


Ultra-Sonic RT-Series Cleaning Module Kit Components and Connections



Item	ID #	Description	P/N
Ultrasonic RT-Series Cleaning Module Kit	1	Ultrasonic Transducer	56208
	2	Power Control Box	
	3	~110VAC Power Cord w/Plug (1.8m)	
	4	24V Power Supply and Communication With RT-Series Sensor (3m)	

Ultra-Sonic RT-Series Cleaning Module Transducer Dimensions (mm)



RT-Series Sensor Programming of the Ultra-Sonic Cleaning Module

The RT-50 and RT-100 sensor interface enables users to rapidly program the cycle frequency of the Ultra-Sonic Cleaning Module. When using this accessory, the RT-Series sensor should be connected to the Ultra-Sonic Cleaning Module Power/Control box via the 3-Pin cable with adapter. This cable will source 24VDC power supply from the Power/Control box for operation of the RT-Series sensor as well as a 'Trigger' signal from the RT-Series sensor back to the Power/Control box where it is converted to 110VAC power supply to activate the Ultra-Sonic Transducer. The RT-Series sensor real-time refractive index reading is used to automatically determine if the sensor is exposed to liquid or air sample, with cleaning operation interlock when the sensor is not exposed to liquid. Once the RT-Series sensor and Power/Control Box have been properly connected and powered, the RT-Series sensor can be programmed for Cleaning Cycle frequency by following the steps below.

Step 1 – Power On RT-50 or RT-100

Step 2 – Press the **MODE** Button repeatedly until Cleaning Cycle screen is displayed.

NOTE the default cleaning cycle frequency of the RT-50 and RT-100 is 15-minutes.

Step 3 – Arrow **UP**↑ or **DOWN**↓ to select the desired cleaning cycle frequency.

Step 4 – Press the **OK** button. A programming success message will appear.

Step 5 – Press the **MODE** button to return to the Home Screen. Your RT-50 or RT-100 are now programmed for the cleaning cycle frequency desired.



Order Information

Ultra-Sonic RT-Series Cleaning Module Kit

(Complete Kit Enables Online Ultra-Sonic Cleaning of RT-50 and RT-100)

P/N

56208

Optional / Replacement Accessories Information

Replacement Ultra-Sonic Transducer w-Cable

Replacement Power/Control Box w-Cables for Ultra-Sonic Cleaning Module Kit

RT-100 Prism – Inline Refractometer *(Includes Tri-Clamp Flow Cell Assembly and Flying Lead Cable)*

RT-50 Prism – Inline Refractometer *(Includes Tri-Clamp Flow Cell Assembly and Flying Lead Cable)*

P/N

56216

56217

55105

10013